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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

SPITTLE, MATTHEW D

ART UNIT PAPER NUMBER

2111

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/506,297	Applicant(s) STEGE, ROLAND	
	Examiner Matthew D. Spittle	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-9 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/1/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 10 (page 10, line 17), 14 (page 10, line 18), and 36 (page 11, line 5). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 3 recites the limitation "a predeterminable fourth threshold value." The specification does not make reference to such a value of current, or indicate what this value might be.

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Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 5 recites the limitation "a predeterminable fourth threshold value." The specification does not make reference to such a value of current, or indicate what this value might be.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 6, 7, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Costa et al.

Costa et al. teach a method for addressing the participants of a bus system comprising a control unit (where a control unit may be interpreted as a master module; Figure 1, item 12), a bus (where a bus may be interpreted as a common line; Figure 1, item 32; column 4, lines 17 – 20) starting from the control unit and a plurality of addressable participants (where a participant may be interpreted as a module; column 4, lines 61 – 66) connected to the bus, wherein the method:

Each participant not addressed so far feeds an identifying current for identifying purposes into the bus, wherein all identifying currents flow through the bus towards the control unit (where feeding a current may be interpreted as pulling a negative current; column 6, lines 42 – 47);

Each participant not addressed so far detects the current flowing through the bus. Costa et al. fail to explicitly teach detecting of the current, however, does teach detecting the voltage across a known resistance. Therefore, examiner identifies this as being equivalent in view of Ohm's Law (column 5, lines 3 – 7, 38 – 41);

Only that participant not addressed so far which does not detect any current or merely detects a current, which is smaller than a predeterminable first threshold value is identified as a participant not addressed so far. Costa et al. teach a method where only the participant not addressed so far which detects a current (or voltage across a known resistance) is identified as a participant to be addressed (column 5, line 35 – column 6, line 18);

An address for addressing purposes is assigned to the thus identified participant (column 5, lines 12 – 22, claim 3);

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The aforementioned steps are carried out, without the respective participant addressed last, until all participants not addressed so far are addressed (column 5, line 35 – column 6, line 18);

Examiner notes that one of the main differences between invention by applicant and the invention of Costa et al. is that the invention by applicant addresses the participant that fails to detect a current (or voltage across a known resistance), and the invention of Costa et al. addresses the participant that succeeds in detecting a voltage (or current through a known resistance). Both operate sequentially, while the applicant's invention begins by addressing the participant furthest from the control circuit, while the invention of Costa et al. begins by addressing the participant closest to the control circuit (CPU). Applicant offers no specific purpose or problem solved by this approach versus the method of Costa et al., and in fact, both perform the same function of sequentially addressing participants of a bus. Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to modify the method of Costa et al. to operate as described by the applicant, since the applicant's method appears to be an arbitrary design choice that fails to patentably distinguish over the prior art.

With regard to claim 2, Costa et al. teaches all limitations of claim 1 as recited in claim 2 but fail to teach at least one participant not addressable which feeds a quiescent current into the bus, each of the participants that are not addressed detecting the said current, and the participant identified as not being addressed so far not detecting any

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current difference or merely detecting a current difference which is smaller than a predeterminable second threshold value as compared with its previous detection.

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to subtract the "error current" created by the non-addressable participant on the bus from the identifying currents detected on the bus. This would have been obvious since it is well known in the art to account for error prior to taking a measurement in order to obtain a more accurate result. In this case, the identified non-addressed participant on the bus performs a calibration step prior to measuring the identifying currents in order to achieve a more accurate measurement. Lang provides an example of this practice (column 1, lines 25 – 34).

With regard to claim 6, Costa et al. teach the additional limitation wherein the current detection in the participants is effected via shunt resistors of the bus assigned to the addressable participants, wherein all shunt resistors are connected in series along the bus (column 5, lines 3 – 6; Figure 1, R1 – R21).

With regard to claim 7, Costa et al. teach the additional limitation wherein a voltage detection is carried out in the participants (column 5, lines 25 – 28, 38 – 41, 49 – 52).

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With regard to claim 8, Costa et al. teach the additional limitation wherein the assignment of an address is effected by transmitting an address to the identified participant (column 5, lines 19 – 22; line 53 – column 6, line 6).

With regard to claim 9, Costa et al. teach the additional limitation wherein the assignment of an address is effected after the first identification of a participant (Figure 4, items 106, 111, 112), or after verification of a participant (Figure 4, items 106, 108, 110, 112; column 6, line 58 – column 7, line 5).

Allowable Subject Matter

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Spittle whose telephone number is (571) 272-2467. The examiner can normally be reached on Monday - Friday, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MDS



Mark Galt
Patent Examiner